ABSTRACT

A module and method incorporated thereby is provided for maintaining the float voltage of a battery cell at an optimum fully charged condition while being continuously charged by a float current. The module preferably includes a mechanism for measuring the actual float voltage of the cell, and a circuit is established for variably bypassing the float current directed to the cell. A device is provided for calculating and establishing a predetermined relationship between a desired cell float voltage and a bypass current required to maintain the desired cell voltage. A mechanism then determines a desired bypass current by comparing the measured actual float voltage of the cell with the predetermined relationship. A system compares the actual bypass current with the desired bypass current, and then a mechanism adjusts the actual bypass current to equal the desired bypass current. This arrangement equalizes the cell float voltage by regulating the bypass current diverted from the cell which in turns varies the actual float current applied to the cell. In one most preferred form, the module is powered from the actual battery cell being monitored by the module.